US ERA ARCHIVE DOCUMENT

				are fictions	
					Facility
	12782	13557	13557	33989	Total
					South
	10180	10973	10973	10981	Total
Adjusted for production + some removal or equipment	440	440	440	448	Others
	220	220	220	220	5 (6L)
Not modified. No MACT appl.	1371	1371	1371	1371	4 (5L)
and BACT.					
Modified in 1998. 92% IO sausnes Polit Noro.	70	863	863	863	
NOT MODIFIED INC MAKE I apple.	4596	4596	4596	4596	2 (2L)
Not modified. No MAC I appl.	3483	3483	3483	3483	1 (1L)
	( <del>ф</del> у)	(YQI)	( <del>tp</del> y)	(tpy)	Coater
Basis	VOC Emissions	VOC Emissions	<b>VOC Emissions</b>	VOC Emissions	
		1997 Allowable	1996 Allowable	1995 Allowable	
					South Plant
					North
	2602	2584	2584	23008	Total
sources not requiring review of wind i					
Mag Mact in 1950, 95% control plus some sham	70	70	70	664	Other
BACT, NSPS, and TIZ(g).					
New In 1996 - local encosure with 20% 10 squares	140	140	140	na	LM3
same as SID above.	13	na.	na	na	ST6
sanshes NSPS and BACI.			-		
New in 1998 - no 112(g) or MACT. Low YOU country	5	na	na	na	ST5
to actuals + 39 = 58. No 112(g) or MAC I.					
Modified to make pharmaceuticals. Yourd ve animed	58	58	58	936	28
Mag Mact in 1996, 95% control	250	250	250	936	27
Mag Mact in 1996, 95% control.	260	260	260	4989	26
Mag Mact in 1996, 95% control.		263	263	5255	25
Mag MACT in 1996, 95% control.		217	217	4340	24
Mag MACT in 1996, 95% control.		240	240	4802	23
Not modified. No MACT appl.		1086	1086	1086	22
	( <del>þ</del> y)	(tpy)	(tpy)	(tpy)	Coater
Basis	VOC Emissions	VOC Emissions	VOC Emissions	VOC Emissions	
	<u> </u>	1997 Allowable	1996 Allowable	1995 Allowable	
					North Plant
South Plant modifies one Council.	institions one coalter	subject to Mag MACT, installs some new equipment and transitions one coatter,	CT, installs some re	subject to Mag MA	
		Potential to Emit based on real products at maximum capacity.	sed on real product	Potential to Emit ba	

~
~
N
4
ø
0

			3M XL -	3M XL - WHAT WOULD'VE OCCURRED	E OCCURRED	
Analysis 1 -	Actual emissions of	ompared to what	Analysis 1 - Actual emissions compared to what "actualty" would've occurred absent XL	occurred absent X	(L.	
	Using criteria in EPA comments	A comments - e.	- e.g., assumes that voluntary controls continue to be	biuntary controls c		operated and typical control efficiencies
	are used instead of "allowable"	of "allowable".				
North Plant						
	1995 Actual	1996 Actual	1997 Actual	1998 Actual	What "Would Have"	Basis for what
	<b>VOC Emissions</b>	<b>VOC Emissions</b>	VOC Emissions	<b>VOC Emissions</b>	Occurred in 1998	"Would Have" occurred
Coater	(tpy)	(tpy)	(tpy)	(tpy)	Absent XL (tpy)	
22	90	93	95	99	394	under XL, effectively capped at 99.
23	82	84	82	80	149	MACT only would require 95%, operating
						margin would be 96% vs 97.8%
24	2	66	71	69	141	MACT only would require 95%, operating
						margin would be 96% vs 98%
25	87	91	94	97	162	MACT only would require 95%, operating
						margin would be 96% vs 97.6%
26	77	18	80	58	155	MACT only would require 95%, operating
						margin would be 96% vs 97.8%
27	12	25	60	28	151	MACT only would require 95%, operating
						margin would be 96% vs 97.8%
28	9	8	8	5	8	Will operate TO at 97% to leave room,
						operating margin would've been 95.5%
ST5	na	eu	na	5	5	no difference
ST6	na	EU.	na	13	13	no difference
LM3	na	08	90	001	129	Will operate TO at 96.5% to leave room,
•				-		operating margin would've been 95.5%
Other	460	300	280	200	70	Will control only top emitters and new
						small lines vs. all MACT sources.
Total	881	930	860	836	1377	
Nont						

			- TX MC	3M XL - WHAT WOULD'VE OCCURRE	E OCCURRED			
South Plant								
	1995 Actual	1996 Actual	1997 Actual	1998 Actual	What "Would Have"	Basis for what	A	
	VOC Emissions	<b>VOC Emissions</b>	VOC Emissions	VOC Emissions Occurred in	Occurred in 1998	"Would Have" occurred	e" occurred	
Coater	(фу)	(tpy)	(tpy)	(tpy)	Absent XL (tpy)	-10		
1 (1L)	380	425	475	560	560	no difference	ě	
2 (2L)	230	260	325	420	420	no difference	æ	
3 (3L)	75	84	120	36	39	NSPS woul	d require 929	NSPS would require 92%, operating
						margin wou	margin would be 92.5% vs 93%	vs 93%
4 (5L)	500	540	610	630	630	no difference	æ	
5 (6L)	43	52	90	130	122	Under XL v	ent w/o conti	Under XL vent w/o control occasionally
Others	198	220	200	150	265	Will add con	ntrol to comp	Will add control to compounding due to
					,	XL savings		
Total	1426	1581	1820	1926	2036			
South								
Total	2307	2411	2680	2762	3413			
Facility								
All numbers	All numbers are fictitious.							

1	į		١
(	2	į	

			3M XL -	3M XL - WHAT COULD'VE OCCURR	OCCURRED			
Analysis 2 -	Actual emissions compared to what could have occurred absent XL	ompared to what c	ould have occurre	d absent XL				•.
	This example uses	This example uses the production data from the 1998 and multiplies by the allowable	ta from the 1998 a	ind multiplies by th		emission rate/required controls.	controls. This	
	analysis assumes the voluntary controls could be turned off.	the voluntary contr	ots could be turne	d off. Control efficiencies with	encies with an opera	n an operating margin are used	re used	,
	(e.g., MACT requir	(e.g., MACT requires 95% - 3M would operate at approx. 96%)	operate at appro	x. 96%).				
North Plant								
	1995 Actual	1996 Actual	1997 Actual	1998 Actual	What Could Have	Basis for		
	VOC Emissions	VOC Emissions	VOC Emissions	<b>VOC Emissions</b>	Occurred in 1998	"Could Have" Actuals	* Actuals	
Coaler	(фу)	(tpy)	(фу)	(tpy)	Absent XL (tpy)			
22	90	93	95		394	under XL, ef	under XL, effectively capped at 99	at 99.
23	82	22	82	80	149	MACT only	MACT only would require 95%, operating	%, operating
						margin would	margin would be 96% vs 97.8%	8%
24	2	<b>6</b> 8	71	69	141	MACT only	MACT only would require 95%, operating	%, operating
			-			margin woul	margin would be 96% vs 98%	*
25	87	91	94	97	162	MACT only	MACT only would require 95%, operating	%, operating
						margin woul	margin would be 96% vs 97.6%	6%
26	777	81	0.8	85	155	MACT only	MACT only would require 95%, operating	%, operating
						margin woul	margin would be 96% vs 97.8%	8%
27	12	25	09	83	151	MACT only	MACT only would require 95%, operating	%, operating
						margin woul	margin would be 96% vs 97.8%	8%
28	g	8	8	5	8	Will operate	Will operate TO at 97% to leave room,	ave room,
						operating ma	operating margin would've been 95.5%	een 95.5%
ST5	na	eu	na	5	5	no difference		
816	na	na	na	13	13	no difference	е	
LM3	na	80	06	100	129	Will operate	Will operate TO at 96.5% to leave room,	leave room,
						operating m	operating margin would've been 95.5%	een 95.5%
Other	460	300	280	200	70	Will control	Will control only top emitters and new	and new
						small lines v	small lines vs. all MACT sources	rces.
Total	881	0C8	098	. 836	1377			
North								

South Plant   1995 Achual   1996 Achual   1997 Achual   1898 Achual									Facility
3M XL - WHA I COULD VE OCCURRED           1995 Actual         1996 Actual         1997 Actual         1998 Actual         What Could Have           VOC Emissions         VOC Emissions         VOC Emissions         VOC Emissions         Occurred in 1998           (lpy)         (lpy)         (lpy)         Absent XL (lpy)           230         260         325         420         2138           75         84         120         36         39           500         540         610         630         646           43         52         90         130         122           198         220         200         150         265           1426         1581         1820         1926         4993				6370	2762	2680	2411	2307	Total
1995 Actual   1996 Actual   1997 Actual   1998   1999									South
1995 Actual   1996 Actual   1997 Actual   1998 Actual   1998 Actual   1998 Actual   What Could Have				4993	1926	1820	1581	1426	Fotal
3M XL - WHA I COULD'VE OCCURRED           1995 Actual         1996 Actual         1997 Actual         1998 Actual         What Could Have           VOC Emissions         VOC Emissions         VOC Emissions         VOC Emissions         Occurred in 1998           (tpy)         (tpy)         (tpy)         (tpy)         Absent XL (tpy)           230         260         325         420         2138           75         84         120         36         39           500         540         610         630         646           43         52         90         130         122           198         220         200         150         265			XL savings.						
3M XL - WHA I COULD'VE OCCURRED           1995 Actual         1996 Actual         1997 Actual         1998 Actual         What Could Have           VOC Emissions         VOC Emissions         VOC Emissions         VOC Emissions         Occurred in 1998           (tpy)         (tpy)         (tpy)         (tpy)         Absent XL (tpy)           380         425         475         560         1783           230         260         325         420         2138           75         84         120         36         39           500         540         610         630         646           43         52         90         130         122	te to	itrol to compounding d	Will add con	265	150	200	220	198	Others
1995 Actual   1896 Actual   1997 Actual   1898 Actual   What Could Have   VOC Emissions   VO	mally	ent w/o control occasio	Under XL ve	122	130	98	52	43	5 (6L)
1995 Actual   1996 Actual   1997 Actual   1998 Actual   What Could Have   VOC Emissions   VO		margin) is applied.	(w/operating						
1995 Actual   1996 Actual   1997 Actual   1998 Actual   What Could Have   VOC Emissions   VOC Emissions   VOC Emissions   VOC Emissions   VOC Emissions   VOC Emissions   Occurred in 1998   (tpy)   (tpy)   (tpy)   Absent XL (tpy)   (tpy)   230   260   325   420   2138   75   84   120   36   39		ired per 1992 permit	Control requ	646	630	610	540	500	4 (5L)
1995 Actual   1996 Actual   1997 Actual   1998 Actual   1998 Actual   What Could Have   VOC Emissions   Occurred in 1998   Absent XL (tpy)   Absent		ld be 92.5% vs 93%	margin woul						
1995 Actual   1996 Actual   1997 Actual   1998 Actual   What Could Have   VOC Emissions   VO	128	require 92%, operatir	NSPS would	39	36	120	8.4	75	3 (3L)
1995 Actual 1996 Actual 1997 Actual 1998 Actual What Could Have  VOC Emissions VOC Emissions VOC Emissions Occurred in 1998  ((py) ((py)) ((py)) Absent XL ((py))  380 425 475 560 1783		equired	no control re	2138	420	325	260	230	2 (2L)
1995 Actual 1996 Actual 1997 Actual 1998 Actual What Could Have VOC Emissions VOC Emissions VOC Emissions VOC Emissions (tpy) (tpy) (tpy) Absent XL (try)		quired	no control re	1783	560	475	425	380	1 (1L)
1995 Actual 1996 Actual 1997 Actual 1998 Actual What Could Have  VOC Emissions VOC Emissions VOC Emissions Occurred in 1998					(tpy)	(tpy)	(tpy)	(фу)	Coater
1995 Actual 1996 Actual 1997 Actual 1998 Actual What Could Have		e Actuals	Could Have	Occurred in 1998	<b>VOC Emissions</b>	┶	<b>VOC Emissions</b>	<b>VOC Emissions</b>	
3M XL - WHAT COULD'YE OCCURRED			Basis for	What Could Have	1998 Actual		1996 Actual	1995 Actual	
3M XL - WHAT COULD VE OCCURRED									outh Plant
				OCCURRED	MHVI CONTRAF	3M XL - 1			